

**ABSTRACT**

5 The present application provides a purified human protein, DNA  
fragment encoding the protein, expression vector for the DNA fragment,  
various cells transformed with the expression vector, and antibody  
against the protein. The purified protein in this invention is useful as a  
medicinal or as an antigen for manufacturing the antibody against the  
proteins. Further, the protein is useful as a search reagent for  
10 elucidating the intracellular protein network or as a protein source for  
screening such a protein as binding with a small molecule medicinal.  
The human cDNA of this invention is useful as a probe for gene diagnosis  
or as a gene source for gene therapy. Further, it can be also used as a  
gene source for mass production of the protein encoded by the cDNA.  
15 The expression vector being capable of translating *in vitro* or expressing  
the DNA within the host cell can be used for producing the human  
protein of this invention *in vitro* or within various host cells. The cells  
carrying the gene and expressing excessively it can be utilized for  
detecting the corresponding receptors and ligands or screening new small  
20 molecule medicinal or the like. The antibody against the protein of this  
invention can be used as a means for purifying the protein or for  
examining an expression level and localization site of the intracellular  
protein.